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CW#38: A & P Word Problems

Geometry

November 4th, 2015

**Vocabulary:** Match the verbal translation with each expression.

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| **Expression** | **Translation** |
| 1. 3x – 5 2. 6 + 2x 3. 0.5x – 2 | 1. The quotient of a number and 6, plus 2. 2. The difference of triple a number and 5. 3. 1 fewer than the quantity of a number plus 4. 4. 6 more than double a number. 5. The difference of half a number and 2. |

**Write a term that illustrates each vocabulary word below.**

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| --- | --- |
| 1. Quotient 2. Is 3. Difference | 1. Sum 2. Twice 3. Quantity |

**Practice Problems:** Translate the sentence into an algebraic expression.

1. 8 times the sum of w and 7
2. y is added to 5
3. x squared plus the product of 10 and z plus 4
4. 4 times the sum of 7 and w
5. Subtract 4 from 3 times x
6. One-half the sum of w and 2
7. Add 9 to 2 times y
8. Add two-fifths to 3 times z
9. Two-thirds of z is subtracted from 9

**Additional Practice:** Evaluate each expression above if

w = 10 x = 6 y = 0.75 z = 3/5

|  |  |
| --- | --- |
| a) The perimeter of a rectangle is 36 centimeters. The width of the rectangle is twice as long as its length. Find the length and width of the rectangle. | b) The area of a rectangle is 8 inches. The length of the rectangle is half as long as its width. Find the length and width of the rectangle. |
| c) Marble floor tiles are each 1-foot square. What is the minimum number of these tiles needed to tile the entire floor of a 10-foot-by-16-foot rectangular kitchen and a 11-foot-by-5-foot dining room? | d) A rectangle has a perimeter of 8 square units. If the length of a rectangle is 1/3 as long as the width, what is the length and width of the rectangle? |
| e) If the length of a rectangle is 3 times the sum of a number and 2. Write an equation for the perimeter and the area.. | f) If a rectangle has a width of 24 feet and a perimeter of 120 feet, what is its area? |
| g) The city of Chicago is painting the perimeter of football fields across the city. Each field is 100 yards long and 60 yards wide. If there are 8 fields that need painting, how much total yards will be painted? | h) If a rectangle has a length of 32 meters, and an area of 384 square meters, what is the rectangle’s perimeter? |